

## Effectiveness and safety of electronic cigarettes among sole and dual user vapers in Kuantan and Pekan, Malaysia: A six-month observational study

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### ABSTRACT

**Background;** Current studies on electronic cigarettes (ECs) have assessed the smoking cessation effectiveness and safety of EC among sole EC users. However, in Malaysia and elsewhere, most EC users also smoke conventional cigarettes (CCs). We aimed to investigate nicotine cessation for both ECs and CCs. Additionally, safety issues among sole EC and dual (EC and CC) users over a six-month period were reported. **Methods;** We observed 218 sole Malaysian EC and dual users over 6 months from June 2015 to November 2015. Both groups underwent exhaled breath carbon monoxide and saliva cotinine analyses to verify their nicotine cessation from both EC and CC use. Adverse events and withdrawal symptoms were assessed based on self-reports.

### KEYWORDS:

Electronic cigarette, Safety, Effectiveness, Conventional cigarette, Carbon monoxide